

CLAIMS

1. A monitor for an injection molding machine, comprising:
 sampling means for detecting, at every predetermined cycle, a variable varying in one molding cycle in an injection molding process and storing the detected variable; and
 means for graphically displaying the variable for a plurality of molding cycles, with a first axis representing time, a second axis representing said variable and a third axis representing the number of molding cycles.
2. A monitor for an injection molding machine, comprising:
 sampling means for detecting, at every predetermined cycle, at least the position of a movable member varying in one molding cycle in an injection molding process and one or more other variables and storing the detected variables; and
 means for graphically displaying the variables for a plurality of molding cycles, with a first axis representing the position of said movable member, a second axis representing said other variable and a third axis representing the number of molding cycles.
3. A monitor for an injection molding machine, comprising:
 sampling means for detecting, at every predetermined cycle, a variable varying in one molding cycle in an injection molding process and storing the detected variable; and
 means for storing a time at a predetermined timing in each the molding cycle; and

means for graphically displaying the variables for a plurality of molding cycles, with a first axis representing time, a second axis representing said variable and a third axis representing said time.

4. A monitor for an injection molding machine, comprising:
sampling means for detecting, at every predetermined cycle, at least the position of a movable member varying in one molding cycle in an injection molding process and one or more other variables and storing the detected variables;

means for storing a time at a predetermined timing in each the molding cycle; and

means for graphically displaying the variables for a plurality of molding cycles, with a first axis representing the position of said movable member, a second axis representing said other variable and a third axis representing said time.

5. The monitor for an injection molding machine according to any one of claims 1 to 4, wherein the sampling means is provided in the injection molding machine.

6. The monitor for an injection molding machine according to any one of claims 1 to 4, wherein the sampling means is outside the injection molding machine and connected to the injection molding machine.

7. The monitor for an injection molding machine according to

any one of claims 1 to 4, wherein said graphically displaying means is provided in the injection molding machine.

8. The monitor for an injection molding machine according to any one of claims 1 to 4, wherein said graphically displaying means is outside the injection molding machine and connected to the injection molding machine.

9. The monitor for an injection molding machine according to any one of claims 1 to 4, wherein said variable is a difference between a sampled variable and a reference variable which is a variable in a specific molding cycle.

10. The monitor for an injection molding machine according to any one of claims 1 to 4, wherein the variable varying in one molding cycle in the injection molding process includes one of injection pressure, injection velocity, a screw position, screw rotation speed, backpressure, motor torque, a mold opening/closing position/speed, an ejector position/speed, and temperatures of a cylinder or a nozzle.